



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 10 2014

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. James A. Holtkamp
Holland & Hart
222 South Main Street, Suite 2200
Salt Lake City, UT 84101

Re: Intermountain Power Project – Settlement Confidential; Subject to F.R.E. 408

Dear Mr. Holtkamp:

Based upon our review of the materials submitted by Intermountain Power Agency and Intermountain Power Service Corporation (collectively, "IPA") pursuant to our September 28, 2010 and August 11, 2011 information requests, the Environmental Protection Agency (the "EPA") has reason to believe that certain turbine and boiler modifications completed at the Intermountain Power Project during 2003 (Unit 1) and 2004 (Unit 2) have triggered the New Source Review Prevention of Significant Deterioration ("PSD") requirements of the Clean Air Act. More specifically, in or about 2006 to 2007, we believe that the boiler and turbine projects¹ that increased the capacity of each unit from 875 to 950 megawatts (hereafter, the "Capacity Expansion Project") resulted in nitrogen oxide ("NO_x") emissions increases of greater than the PSD significance threshold of 40 tons per year ("tpy") at each unit. We would like to schedule a meeting with IPA in our Washington D.C. office during the week of October 6, 2014 to discuss our respective positions and resolution of this matter.

This letter provides an overview of our analysis. While IPA has admitted to net increases of NO_x emissions as high as 1065 tpy at Unit 1 and 405 tpy at Unit 2,² IPA claims to avoid PSD applicability by attributing the increases to three factors IPA asserts are "unrelated" to the

¹ These projects included, among other changes, a replacement of the high pressure section of the turbine and the lengthening of the superheater pendant tubes in the boiler.

² See October 19, 2012 *Draft responses to EPA/DOJ May 9th Questions, Response 10, R10-IPP_WEPCO_Compliance_REPORTbasis2009.xls* (subtracting the 13,359 tpy baseline from actual emissions of 14,424 tpy for the 12-month period ending in March 2007 for Unit 1, and subtracting the 12,950 tpy baseline from actual emissions of 13,355 tpy for the 12-month period ending in November 2007 for Unit 2).

Capacity Expansion Project.³ Specifically, IPA attributes NO_x emissions increases to changes in fuel quality and hours of operation. IPA also adjusts its emissions due to the use of over-fire air (“OFA”). In doing so, IPA claims to bring the aggregate emissions for each unit to below baseline emissions for the relevant post-project periods, and thus to below PSD significance levels.

We find IPA’s analysis unpersuasive. As a threshold matter, we do not believe it is possible to evaluate whether a modification has triggered PSD by considering only the emission impact of select non-project factors, and not considering project-related impacts. Nonetheless, we believe that IPA’s analysis of each of those three factors and their impact on post-project emissions is flawed. For purposes of this letter, we limit our discussion to a few of the issues raised by your analysis and, for the sake of brevity, we focus only on Unit 1, although a corresponding analysis would apply to Unit 2.

Looking first at fuel quality, we do not agree with IPA’s exclusion of post-project emissions that it claims are attributable to a switch to higher sulfur content coal, based on a purported correlation between the sulfur content of coal and NO_x emissions. We are not aware of an established basis for such a relationship in peer-reviewed literature. Moreover, we find IPA’s own statistical support for the purported correlation to be unpersuasive, because it is based on a small sample of hourly data largely derived from a single test of petroleum coke. Even if IPA’s approach were valid, however, and a change in fuel did cause an actual emissions increase, the expected result of such a change would be a higher emission rate in the post-project period. Instead, the NO_x emission rates at Unit 1 for the relevant post-project periods are well below the baseline rate of 0.43 lbs./MMBtu. This lack of a corresponding increase in emission rate indicates that there was no quantifiable fuel-related NO_x emissions increase at the time of the Capacity Expansion Project.

IPA’s adjustment for hours of operation also contains significant flaws. First, IPA utilizes a ratio of post-project operating hours to baseline average annual operating hours that assumes an identical unit load in the relevant post-project period to that which occurred during the baseline period. Since unit load varied, it is inappropriate to hold the ratio constant and not account for load variation. When a unit is run for more hours at higher load, fuel use and average emissions per hour of operation will rise, holding everything else constant. Second, IPA’s calculation does not take into account the decrease in NO_x emission rates between the baseline and post-project periods. By excluding emissions based on a ratio of hours of operation and utilizing the baseline emission rate (which is higher than the post-project rate) to calculate the total amount of emissions, IPA is excluding post-project emissions that were not generated because the hours that the unit operated in the post-project period had a lower emission rate than occurred during the baseline period.

Finally, we believe IPA’s inclusion of purported emission benefits from use of OFA is problematic on a number of fronts. Of particular note, IPA did not adapt its calculations intended to determine the effect of OFA to reflect whether OFA was actually in operation. This is a

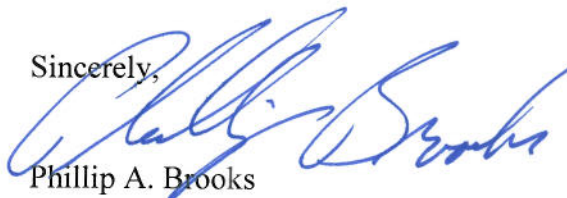
³ See *id.*; see also, October 15, 2012, “Explanation of WEPCO Calculations for the Intermountain Generating Station.”

significant error, since IPA's use of OFA varied, and use was limited during the post-project periods when there were significant actual emissions increases. During those periods, OFA was used less than fifty percent of the time at Unit 1 and only about one percent of the time at Unit 2. By relying on parameters other than the degree of OFA operation in its calculations, IPA's results show no benefit of OFA at Unit 1 and a significant benefit at Unit 2 when, in fact, Unit 1 utilized OFA significantly more than Unit 2. Therefore, IPA's adjustments lead to an illogical result.⁴

In conclusion, we have examined multiple 12-month periods during which IPA's actual post-project emissions exceeded baseline emissions by more than 40 tpy of NO_x. For Unit 1, for each of the 10 such periods, we find a NO_x emissions increase of at least 180 tpy attributable solely to the Capacity Expansion Project.⁵ We calculated the daily heat input that would not have occurred but for the Capacity Expansion Project and multiplied it by the actual NO_x emission rate to derive these project-related NO_x emissions increases. These increases could not have been accommodated during the baseline period and therefore cannot be excluded from the WEPCO calculation. Thus, we believe that the Capacity Expansion Project triggered PSD.

We are prepared to further explain the basis of our own analysis and our critique of IPA's analysis in person. To arrange the particulars of our proposed meeting in Washington D.C., please contact Kellie Ortega at 202-564-5529.

Sincerely,



Phillip A. Brooks

cc: Michael J. Tomko, Parsons Behle & Latimer
Kristin Furrie, Department of Justice
Cynthia Reynolds, Air and Toxics Technical Enforcement Program Director, Region 8
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Shaun Burke, EPA, Office of Enforcement and Compliance Assurance
Kellie Ortega, EPA, Office of Enforcement and Compliance Assurance

⁴ See n. 3, *supra*.

⁵ For Unit 2, we find similar results for each of the nine 12-month periods during which IPA's actual post-project emissions exceeded the baseline emissions by more than 40 tpy of NO_x.